

131/108, 109.1, 109.3, 109.2, 84.3, 84.4, 110,
108

WHAT IS CLAIMED IS:

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- A method of converting a mixture of short and
2 long tobacco particles into a rod-like filler, compris-
3 ing the steps of:
4 segregating the short particles of the mixture
5 from the long particles;
6 advancing an elongated stream of segregated long
7 particles along a predetermined path; and
8 admitting into the path short particles for hetero-
9 geneous distribution in the stream.

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1 ~~2.~~ The method of claim 1, further comprising the
2 step of gathering short particles into batches prior to
3 said admitting step.

1 ~~3.~~ The method of claim 2, wherein said admitting
2 step includes introducing into the path a series of
3 spaced apart batches, and further comprising the steps
4 of confining the stream and the batches in a tubular
5 wrapper, and severing the wrapper and the stream between
6 successive batches.

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1 ~~4.~~ The method of claim 3, wherein said advancing
2 step includes moving lengthwise a stream consisting of
3 long tobacco particles ~~and having two spaced apart~~
4 ~~marginal portions~~, said admitting step including applying
5 ~~to one side of the stream~~ batches of short particles ~~in~~
6 ~~spaced apart positions from at least one marginal portion~~
at least substantially centrally of said stream

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1 ~~5.~~ The method of claim 1, wherein said segregating
2 step includes sifting the mixture of short and long
3 particles.

1 ~~6.~~ The method of claim 1, further comprising the
2 step of gathering short particles into a mass prior to
3 said admitting step.

1 ~~7.~~ The method of claim 6, wherein said admitting
2 step includes monitoring the quantity of short particles
3 in the mass and introducing short particles from the mass
4 into the stream at a rate which is dependent upon the
5 quantity of short particles in the mass.

1 → 8. The method of claim 1, further comprising the
2 steps of gathering short particles into unequal batches
3 prior to said admitting step and thereupon equalizing
4 the batches, said admitting step including introducing
5 equalized batches of short particles into said path at
6 at least substantially identical intervals.

1 ~~9.~~ Apparatus for building a tobacco filler for
2 the making of rod-shaped smokers' products from a mixture
3 of short and long tobacco particles, comprising:

4 means for segregating short particles of the
5 mixture from the long particles;

6 means for advancing an elongated stream of
7 segregated long particles along a predetermined path;
8 and

9 means for admitting into longitudinally spaced-
10 apart portions of the elongated stream batches of
11 segregated short particles in a heterogeneous distribu-
12 tion.

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1 → 10. The apparatus of claim 9, wherein said
2 advancing means includes an endless foraminous conveyor
3 and means for attracting segregated long particles and
4 batches of short particles to said conveyor.

1 → 11. The apparatus of claim 9, wherein said
2 admitting means includes a rotary suction drum having
3 a peripheral array of suction chambers for the delivery
4 of batches of short particles to a predetermined portion
5 of said path.

1 → 12. The apparatus of claim 11, further comprising
2 means for converting the stream into discrete fillers
3 of rod-shaped smokers' products having a predetermined
4 length, said suction chambers having a length, as seen
5 circumferentially of said drum and longitudinally of said
6 path, which is less than said predetermined length.

1 → 13. The apparatus of claim 11, wherein said path
2 has a width exceeding the width of a batch and said drum
3 is arranged to deliver batches of short particles at
4 least substantially centrally of said path.

14. The apparatus of claim 9, wherein said segregating means comprises at least one mobile sieve having a mesh such that the sieve permits at least some short particles to pass therethrough but intercepts at least the majority of long particles.

15. The apparatus of claim 9, further comprising means for collecting short particles upon segregation from long particles.

16. The apparatus of claim 15, further comprising means for monitoring the quantity of short particles in said collecting means.

→ 17. The apparatus of claim 9, wherein said admitting means comprises a vibratory conveyor arranged to transport segregated short particles from said segregating means toward said path, and a suction conveyor arranged to attract short particles from said vibratory conveyor and to deliver the thus attracted short particles to said path.

18. The apparatus of claim 9, further comprising means for collecting short particles upon segregation from long particles, said admitting means including a conveyor for advancement of short particles to said path and means for transferring metered quantities of short particles from said collecting means to said conveyor.

19. The apparatus of claim 9, wherein said admitting means includes means for trimming the batches prior to entry into said path.

20. The apparatus of claim 9, wherein said admitting means includes a first suction conveyor rotatable about a horizontal axis and said advancing means comprises a second suction conveyor disposed at a level above said first suction conveyor and arranged to accept short particles from said first conveyor.

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